

TH

**Notice of Allowability**

Application No.

10/563,238

Examiner

Anastasia Midkiff

Applicant(s)

UDA, MASAYUKI

Art Unit

2882

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant Response filed 23 October 2007.
2. ☒ The allowed claim(s) is/are 2-4.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

ASM

**ATTACHMENT TO NOTICE OF ALLOWABILITY**

***Allowable Subject Matter***

Claims 2-4 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to Claim 2, the prior art of record teaches many of the elements of the claimed invention, including an energy dispersion type x-ray diffraction/spectral device comprising: a white x-ray generating means; an x-ray detecting means; a specimen support interposed between said white x-ray generating means and said x-ray detecting means, said specimen support having positioning members which are capable of positioning said white x-ray generating means and said x-ray detecting means relative to each other in either a first position or a second position without the use of a goniometer; wherein said x-ray device obtains intensity data for each level of energy at the first position to obtain first data and at the second position to obtain second data; wherein said x-ray device obtains third data which is data regarding diffracted x-rays and is based on a difference between said first data and said second data; and wherein said x-ray device obtains data regarding fluorescent x-rays.

However, prior art does not teach or fairly suggest the device wherein said fluorescent x-ray data is obtained from the difference between the first or second data and third data, in the manner required by Claim 2.

With respect to Claim 3, the prior art of record teaches many of the elements of the claimed invention, including an energy dispersion type x-ray diffraction/spectral device comprising: a white x-ray generating means; an x-ray detecting means; a

specimen support interposed between said white x-ray generating means and said x-ray detecting means, said specimen support having positioning members which are capable of positioning said white x-ray generating means and said x-ray detecting means relative to each other in either a first position or a second position without the use of a specimen rotation mechanism; wherein said x-ray device obtains intensity data for each level of energy at the first position to obtain first data and at the second position to obtain second data; wherein said x-ray device obtains third data which is data regarding diffracted x-rays and is based on a difference between said first data and said second data; and wherein said x-ray device obtains data regarding fluorescent x-rays.

However, prior art does not teach or fairly suggest the device wherein said fluorescent x-ray data is obtained from the difference between the first or second data and third data, in the manner required by Claim 3.

With respect to Claim 4, the prior art of record teaches many of the elements of the claimed invention, including an energy dispersion type x-ray diffraction/spectral device comprising: a white x-ray generating means; an x-ray detecting means; a specimen support interposed between said white x-ray generating means and said x-ray detecting means, said specimen support having positioning members which are capable of positioning said white x-ray generating means and said x-ray detecting means relative to each other in either a first position or a second position; a data processing means; wherein said x-ray detecting means obtains intensity data for each level of energy at the first position to obtain first data and at the second position to obtain second data; wherein said x-ray data processing means obtains third data which is data

regarding diffracted x-rays and is based on a difference between said first data and said second data; and wherein said data processing means obtains data regarding fluorescent x-rays.

However, prior art does not teach or fairly suggest the device wherein said fluorescent x-ray data is obtained from the difference between the first or second data and third data, in the manner required by Claim 4.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Documents to: Lewis (US 2005/0069085 A1) teaches an x-ray diffraction/spectral device that obtains two sets of x-ray diffraction data and compares them to obtain an x-ray refraction image and an absorption image, but does not obtain absorption/fluorescence image from a difference between the refraction image and one of the two diffraction data sets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anastasia Midkiff whose telephone number is 571-272-5053. The examiner can normally be reached on M-F 7-4.

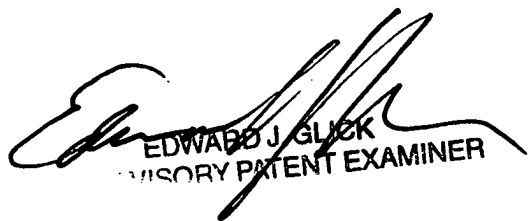
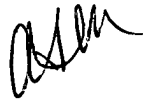
Application/Control Number:  
10/563,238  
Art Unit: 2882

Page 5

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASM  
01/04/08



EDWARD J. GLICK  
SENIOR PATENT EXAMINER